13. The apparatus according to any one of claims 9 to 12, characterised in that the memory and evaluation unit (15) is designed in such a way that the relationship between haematocrit HKT or blood volume RBV and pressure for various cannula diameters and various blood-flow values is described by a non-linear function.

14. The apparatus according to any one of claims 9 to 13, characterised in that the memory and evaluation unit (15) is designed in such a way that the pumping rate BPR of the blood pump (6) is determined in order to determine the blood flow.

15. The apparatus according to any one of claims 9 to 14, characterised in that the memory and evaluation unit (15) is designed in such a way that the blood volume RBV is determined from the haematocrit HKT.

16. The apparatus according to claim 15, characterised in that the memory and evaluation unit (15) is designed in such a way that the blood volume RBV is calculated at a specified time t of the blood treatment from the product HKT (t_0) RBV (t_0) of the haematocrit HKT (t_0) at a preceding time t_0 and the blood volume RBV (t_0) at a preceding time t_0, divided by the haematocrit HKT(t_0) at the specified time t.